



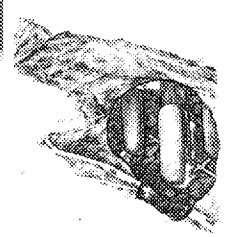
Red Hill Fuel Facility

Update on the Status of Work Administrative Order on Consent

Presented by:

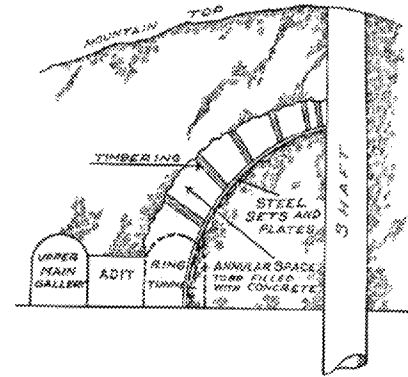
Hawaii Department of Health

US Environmental Protection Agency



Summary of the Problem

- Massive Facility
- Built in Early 1940s
- Unique Design and Construction
- Located above Drinking Water Aquifer
- Currently Stores only Jet Fuel and Marine Diesel
- Historically stored gasoline, aviation fuel
 - Contrast between fuel risks
- Has had Leaks
- Complex Geology
 - Extremely difficult to locate contamination
 - Even more difficult to cleanup





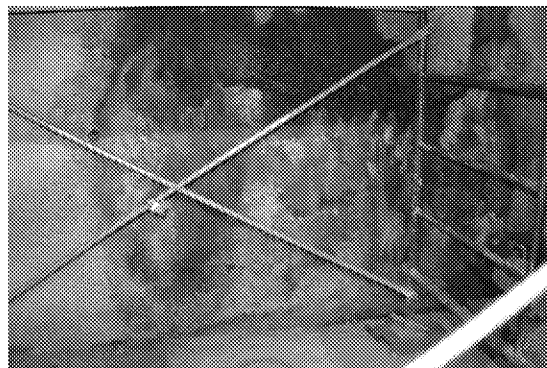
Ongoing Monitoring of Groundwater and Drinking Water

- Drinking Water is Safe
 - Potential Petroleum Related Contaminants Not Detected in BWS Halawa Shaft and Moanalua Wells
 - Very low levels of Fuel Related Contaminants Detected in Red Hill Shaft
 - Petroleum Contaminants not detected in most recent sampling event.
 - Trace Petroleum Contaminants Have Been Found In Red Hill Shaft but Not Above State or Federal Risk Based Standards
- Monitoring Beneath and Around Facility Shows Some Contamination of Groundwater
 - Highest Concentrations limited to area directly below tanks



Why Did Tank 5 Leak Approximately 27,000 Gallons of Jet Fuel in January 2014?

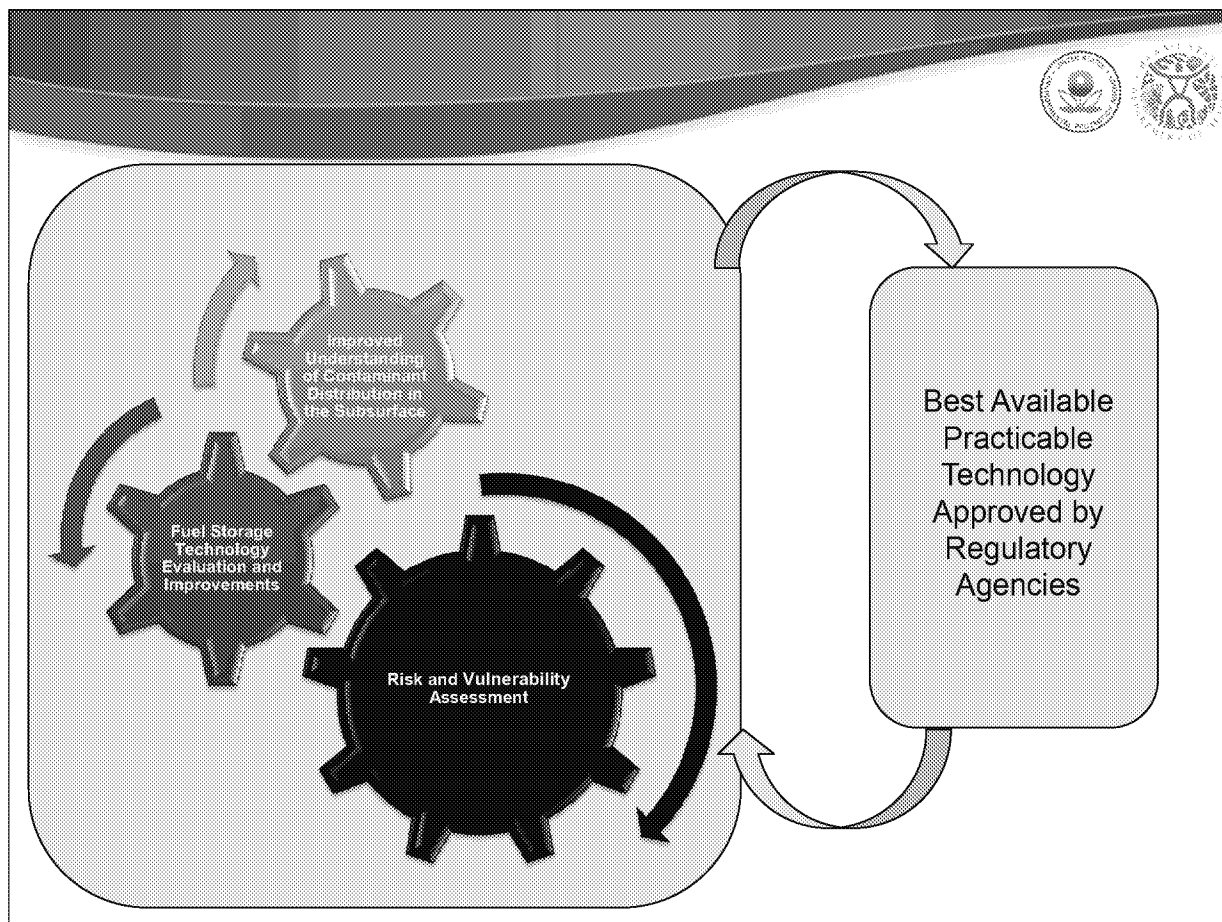
- Defects were found in the steel liner of one of the tanks
- Agencies Believe Release Resulted from
 - Poor Quality Control
 - New Contractor
 - Lack of Oversight
 - Management Systems
 - Alarm Procedures
 - Filling Procedures





Objective of the AOC

- Protect Drinking Water
- Ensure Actions Are Taken by Navy and DLA to Reduce Risk of Future Releases that Could Threaten Drinking Water Quality
- How
 - Understand Likelihood and Consequences of Releases
 - Implement Best Technologies and Practices to Reduce Risk to the Maximum Extent Practicable





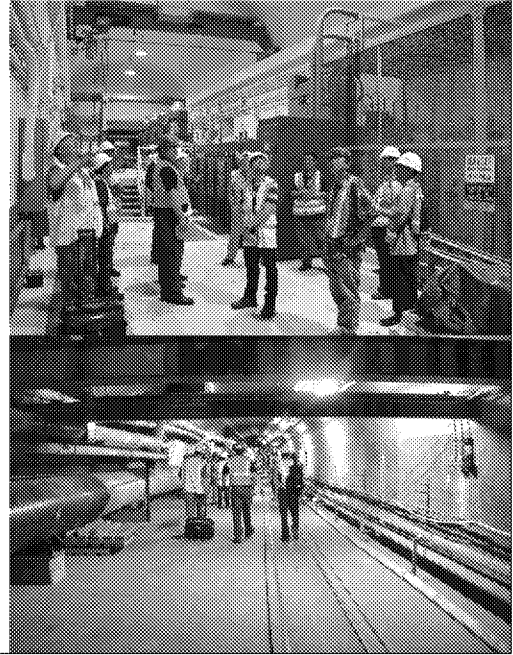
Work Status

- Section 2- Navy to submit Report on 10/11/16
- Section 3- Regulators reviewing scope of work
- Section 4- Scoping meetings underway to identify improvements
- Section 5- Scoping meetings underway to identify improvements
- Section 6 and 7- Navy to revise scopes of work
- Section 8- Scoping meetings underway



Expert Evaluation of the Facility

- Regulatory Agencies Brought Fuel Storage Experts out to Conduct a Week Long Evaluation of the Facility in May 2016
 - ERG Consulting, Aspen Controls, PEMY Consulting, and Powers Engineering
- Preliminary Findings
- Report Will Be Available By End of Year





Stakeholder Involvement and Transparency

- BWS, USGS, and DLNR Identified as Subject Matter Experts
 - Actively Involved in the AOC Implementation Process
- Transparency – All Important Documents and Data Available to the Public via the Internet
 - <https://www.epa.gov/red-hill>
 - <http://health.hawaii.gov/shwb/ust-red-hill-project-main/>



Expertise Involved in Project

Navy/DLA Team

- Navy Expert Team
- Navy EXWC
- AECOM
- HDR Consulting
- ABS Consulting

Regulatory Team

- DOH Experts
- EPA Experts
- U of H
- PEMY Consulting
- Innovex Consulting

External Subject Matter Experts

- DLNR
- US Geological Services
- Board of Water Supply
 - Intera Consulting
 - Exponent Consulting
 - Mott-Smith Consulting



What to Expect Next

- Data from Four New Monitoring Wells
- Destructive Testing
- First BAPT Decision Early 2018
 - Potential Pilot Technology Tests



For More Information

- <https://www.epa.gov/red-hill>
- <http://health.hawaii.gov/shwb/ust-red-hill-project-main/>
- Email: RedHill@EPA.GOV
- Call: Thu Perry of HDOH - 808-586-4226